

# THE EMPIRE DISTRICT ELECTRIC COMPANY

## SO<sub>2</sub> Allowance Management Policy

### Introduction

The purpose of the SO<sub>2</sub> Allowance Management Policy (SAMP) document is to set out the approach and internal guidelines that The Empire District Electric Company (EDE) will utilize to manage its SO<sub>2</sub> allowances. Specifically, this document is structured to achieve the following two objectives:

**Objective 1:** Manage banked SO<sub>2</sub> allowances and expected future allocated allowances in a manner that will minimize, subject to any identified risk considerations, the expected future long run cost (from a revenue requirement perspective) of complying with current and future environmental regulations while fulfilling obligations to provide adequate service at reasonable rates. As used in this objective statement, the “expected future long run cost of complying with current and future environmental regulations” includes, but is not limited to: the market price of SO<sub>2</sub> allowances needed for compliance with environmental regulations, the cost of investments in emission control equipment, additional operating and maintenance costs associated with new installations of emission control equipment, and other changes in power production costs (e.g. due to declines in the efficiency (heat rates) of generating units and changes in merit order of unit dispatch) associated with new installations of emission control equipment.

**Objective 2:** Provide a structure and procedure for the authorization of SO<sub>2</sub> allowance transactions.

### History

Following are excerpts from the Environmental Protection Agency’s (EPA’s) web site (<http://www.epa.gov/airmarkets/arp/overview.html#phases>) describing the SO<sub>2</sub> allowance trading program:

*Title IV of the Clean Air Act set a goal of reducing annual SO<sub>2</sub> emissions by 10 million tons below 1980 levels. To achieve these reductions, [a program, deemed the Acid Rain Program, was implemented].*

*The Acid Rain Program represents a dramatic departure from traditional command and control regulatory methods which establish specific, inflexible emissions limitations with which all affected sources must comply. Instead, the Acid Rain Program introduces an allowance trading system that harnesses the incentives of the free market to reduce pollution.*

*Under this system, affected utility units are allocated allowances based on their historic fuel consumption and a specific emissions rate. Each allowance permits a unit to emit 1 ton of SO<sub>2</sub> during or after a specified year. For each ton of SO<sub>2</sub> emitted in a given year, one allowance is retired, that is, it can no longer be used.*

*Allowances may be bought, sold, or banked. Anyone may acquire allowances and participate in the trading system. However, regardless of the number of allowances a source holds, it may not emit at levels that would violate federal or state limits set under Title I of the Clean Air Act to protect public health.*

*During Phase II of the program (now in effect), the Act set a permanent ceiling (or cap) of 8.95 million allowances for total annual allowance allocations to utilities. This cap firmly restricts emissions and ensures that environmental benefits will be achieved and maintained.*

## **Procedures**

Today, EDE finds itself in a position where it has excess banked allowances to meet its annual SO<sub>2</sub> emissions. The SO<sub>2</sub> allowance trading program allows early vintage allowances to be traded for later vintage allowances. As the market stands today, EDE can trade current year vintage allowances for later vintage allowances and also receive a premium (whether more allowances or a monetary value). The following presents procedures that EDE will follow to effectively manage banked allowances in order to benefit EDE and its customers.

## **Annual SO<sub>2</sub> Projections**

As stated above, EDE is allocated a certain number of SO<sub>2</sub> allowances each year based on historic fuel consumption and emission rates. Before EDE can prudently trade any allowances, EDE must determine how many allowances it currently has banked, how many allowances it projects to need on a yearly basis, and how many additional allowances it projects to receive in future years.

Many assumptions will go into these projections. For example, the types of coals that will be burned in generating units, the sulfur content of those coals, projected regulations that may affect the SO<sub>2</sub> trading program, and projected installed air quality pollution control equipment that will affect emission rates of generating units are some of the major assumptions that will have to be made in order to make these projections.

Commencing with the first full calendar year the SAMP is in effect, EDE will provide an Annual SO<sub>2</sub> Projection to MPSC Staff and OPC by January 31 of each calendar year.<sup>1</sup> Concurrently, Empire will notify the Commission stating that the Annual SO<sub>2</sub> Projection has been provided to designated personnel from MPSC Staff and OPC. MPSC Staff and OPC will have thirty (30) days to respond to the submitted projections. If no response, disagreement, or concerns in regards to the projections are received from MPSC Staff and OPC within thirty (30) days of the submittal, the projections will automatically be considered to be the current basis for future transactions. [Note: Written correspondence (email, fax, or letter) will be considered as an official response. The response must

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<sup>1</sup> Due to the timing of the effective date of Empire's SAMP, Empire will provide the first Annual SO<sub>2</sub> Projection by the end of the first quarter 2005.

specifically dispute or question an aspect of the projections and can not merely be correspondence used to extend the period of review because of the inability of MPSC Staff or OPC to timely review the projections.]

The annual projections may need to be updated more often throughout the year. Reasons for interim updates would include, but not be limited to: (1) substantial changes in the price of allowances, (2) substantial changes in the cost and/or effectiveness of emission control technologies, (3) substantial changes in environmental regulations or proposed environmental regulations, and (4) substantial changes in other energy market conditions. Any such interim updates to annual projections will be supplied to MPSC Staff and OPC before they are used as a basis for future transactions.

Any disputes about the annual projections or any necessary interim updates to the annual projections will be discussed among the parties and the parties will cooperate to resolve the dispute in good faith. If the parties cannot resolve the dispute within forty (40) days of the original filing date, the matter will be brought to the Commission for its determination.

### **Contents of the Annual SO<sub>2</sub> Projection**

The Annual SO<sub>2</sub> Projection will include at least three different scenarios of projections. A baseline projection will be made based on currently contracted fuel types (sulfur content), current emission rates, and best estimate of future regulations. A second projection will be made that looks at a worst case scenario of future allowances. The final projection will look at a best case scenario (if one better than the baseline exists). Examples of projections and scenarios are attached as Exhibits A and B. These scenarios will be used to project a range of future allowance bank surpluses or deficits for each year of a planning horizon. The planning horizon will consist of at least ten (10) years.

The Annual SO<sub>2</sub> Projection shall also provide an estimate of the cost to "produce" additional allowances at one or more of EDE's generating facilities if EDE were to install air quality control equipment that would lower SO<sub>2</sub> emission rates. As part of the documentation of the cost to "produce" additional allowances, EDE will include a description of its rationale for choosing the specific generating facility upon which the cost estimate is based. The cost estimate may be based on cost data available in the industry and will not require a unit-specific engineering study.

The Annual SO<sub>2</sub> Projection will also set out a range of tradable allowances and intended transactions that Empire proposes during the upcoming year. The range of tradable allowances and the intended transactions will be based on a methodology that will minimize, subject to any identified risk considerations, the expected future long-run cost (from a revenue requirement perspective) of complying with current and future environmental regulations while fulfilling obligations to provide adequate service at reasonable rates and ensuring that the operation of Empire generators will not be restricted due to a deficiency of available SO<sub>2</sub> allowances. The "expected future long-run cost of complying with current and future environmental regulations" includes, but is not

limited to: the market price of SO<sub>2</sub> allowances needed for compliance with environmental regulations, the cost of investments in emission control equipment, additional operating and maintenance costs associated with new installations of emission control equipment, and other changes in power production costs (e.g. due to declines in the efficiency (heat rates) of generating units and changes in merit order of unit dispatch) associated with new installations of emission control equipment.

The Annual SO<sub>2</sub> Projection will also include copies of all completed transactions and necessary back-up documentation for the previous year's transactions. The Projection will also include the quantity of allowances issued to Empire in the past year, the quantity of allowances used to offset emissions, the quantity of allowances bought/sold, the quantity and vintage of any allowances received as a result of a transaction, any monetary value received as a result of any transaction, and any expenses (such as brokerage fees) related to transactions. Empire will use an electronic spreadsheet to track individual allowances by serial number (see Exhibit C for an example of this spreadsheet). This spreadsheet will be made available to MPSC Staff and OPC upon their request.

### **Types of Transactions**

For the purposes of EDE's SAMP the following transactions will be allowed and defined as such.

#### *Buy*

Purchase allowances for (A) monetary value (e.g. cash), (B) other allowances, or (C) a combination of cash and other allowances. Transactions of the type (B) and (C) are commonly referred to as "Swaps" in the industry.

#### *Sell*

EDE will be allowed to "Sell" allowances for (A) monetary value (e.g. cash), (B) other allowances, or (C) a combination of cash and other allowances. Transactions of the type (B) and (C) are commonly referred to as "Swaps" in the industry. Examples of (B) and (C) types of transactions are listed below.

#### **(B) Swap Vintage 20xx or earlier Allowances for Additional Vintage 20xx Allowances**

##### *Example:*

*Swap Five Hundred (500) Vintage 2004 Allowances valued at \$500 per allowance for Six Hundred Twenty-Five (625) Vintage 2009 Allowances valued at \$400 per allowance*

$$500 \text{ (2004 Allowances)} \times \$500 = 625 \text{ (2009 Allowances)} \times \$400$$

*Value: Zero (0) net exchange dollars in 2004 but creates an additional 125 allowances that have future value to Empire and its customers*

**(C) Swap Equal Amount of Vintage 20xx Allowances for Vintage 20xx allowances plus monetary payment**

*Example:*

*Swap Five Hundred (500) Vintage 2004 Allowances valued at \$500 per allowance for Five Hundred (500) Vintage 2009 Allowances valued at \$400 per allowance plus a cash payment of \$100 per allowance \* 500 Allowances.*

*500 (2004 Allowances) x \$500 = 500 (2009 Allowances) x \$400 + \$100 per Allowance x 500*

*Value: \$50,000 in Year 2004 and the same number of total allowances*

**Trading Parameters and Authorization**

Details of the (1) internal controls, (2) authorization parameters and limits, (3) internal management reports, and (4) duties and workflow of personnel involved in implementing and overseeing the SAMP will be included in separate documentation; however the following paragraph sets forth the fundamental controls for the SAMP program.

SO<sub>2</sub> Allowance trading can only be authorized by the Company's Designated Representative (DR) or Alternate Designated Representative (ADR) as defined by the Clean Air Act. The DR and ADR are currently the Vice President of Energy Supply and Director of Safety and Environmental Service. Approval requirements for transactions will be consistent with other monetary approval requirements within the Company. All transactions will be consistent with the Annual SO<sub>2</sub> Projection (or interim updates thereto) provided to Staff and OPC.

These transactions will be carried out via a contract signed with a brokerage firm that regularly deals in the SO<sub>2</sub> allowance trading program. The revenues and expenses related to the SAMP will be booked to the accounts prescribed in Federal Regulatory Commission Code of Federal Regulations 18 general instruction 21 paragraphs A. through H.

**EPA Allocation**

The parties recognize that the EPA withholds some of the Company's yearly allowance allocation as part of the CAA process. The EPA sells these allowances and then compensates EDE monetarily. The parties understand that Empire has no control of the EPA withholding or payment received from the EPA for these allowances. However, any revenues associated with these allowances will be considered as a component of the SAMP and will be treated according to the terms set out hereinabove.